Section 2
1998 Crash Participants, Injured Persons and Fatalities

TABLES

FIGURES

Crash Injured Persons and Fatalities 1968 - 1998

The trends in injuries and fatalities for the past thirty years are shown in Table 2.01. During this time period over half a million persons have been injured and almost 10,000 people have been killed in a crash.

In 1998, there was a slight decline in the number of people killed or injured in motor vehicle crashes compared to previous years. The injured person rate per 100 million vehicle miles traveled (MVMT) was 148.1 in 1998. This was a 3% decrease from the 1997 rate of 153.1. The lowest fatality rate per 100 MVMT occurred in 1998 at 1.6, which was a slight decrease from 1.8 the previous year.

Table 2.01 Crash Injured Persons and Fatalities, 1968-1998

Year	Million Vehicle Miles	Injuries	Fatalities	Injury Rate per 100 Million Vehicle Miles	Fatality Rate per 100 Million Vehicle Miles
1968	5,539	15,539	289	295.6	5.2
1969	5,802	15,977	308	275.4	5.3
1970	6,108	17,076	335	294.3	5.5
1971	6,544	18,073	337	276.2	5.1
1972	6,969	18,261	382	279.0	5.5
1973	7,274	18,415	361	253.2	5.0
1974	7,457	16,268	228	223.6	3.1
1975	7,942	17,762	274	223.6	3.5
1976	8,420	18,315	254	230.6	3.0
1977	9,054	19,728	360	217.9	4.0
1978	9,826	21,029	376	232.3	3.8
1979	9,811	20,798	328	212.0	3.3
1980	10,645	17,828	335	181.7	3.1
1981	10,733	18,090	364	168.5	3.4
1982	10,947	17,538	296	163.4	2.7
1983	11,228	18,910	283	168.4	2.5
1984	11,642	20,487	315	182.5	2.7
1985	12,035	21,346	303	177.4	2.5
1986	12,253	21,350	312	177.4	2.5
1987	12,679	19,237	297	151.7	2.3
1988	13,263	19,066	297	150.4	2.2
1989	13,915	19,843	303	142.6	2.2
1990	14,646	20,608	272	148.1	1.9
1991	15,390	19,540	271	127.0	1.8
1992	16,263	22,490	269	146.1	1.7
1993	17,055	25,763	303	151.1	1.8
1994	18,080	28,436	343	166.7	1.9
1995	18,786	28,343	325	150.9	1.7
1996	19,433	30,711	328	163.5	1.7
1997	20,408	31,238	366	153.1	1.8
1998	21,237	30,232	350	148.1	1.6

Figures 2.01 and 2.02 reflect the trends in rates of persons injured and killed in crashes per 100 million vehicle miles traveled (MVMT) from 1968 to 1998. The injury rates were highest in the late-sixties and early-seventies. The rate of persons killed has markedly decreased from 5.2 persons killed per 100 MVMT in 1968 to 1.6 persons killed per 100 MVMT in 1998. The biggest decrease in fatalities for one year occurred in 1973 after the implementation of a 55 MPH speed limit.

Figure 2.01 Crash Injured Person Rates per Miles Traveled, 1968 -1998

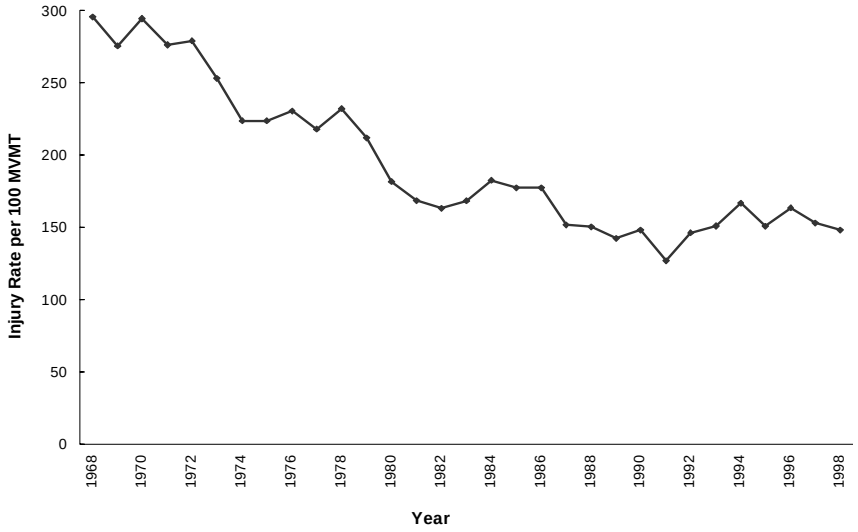
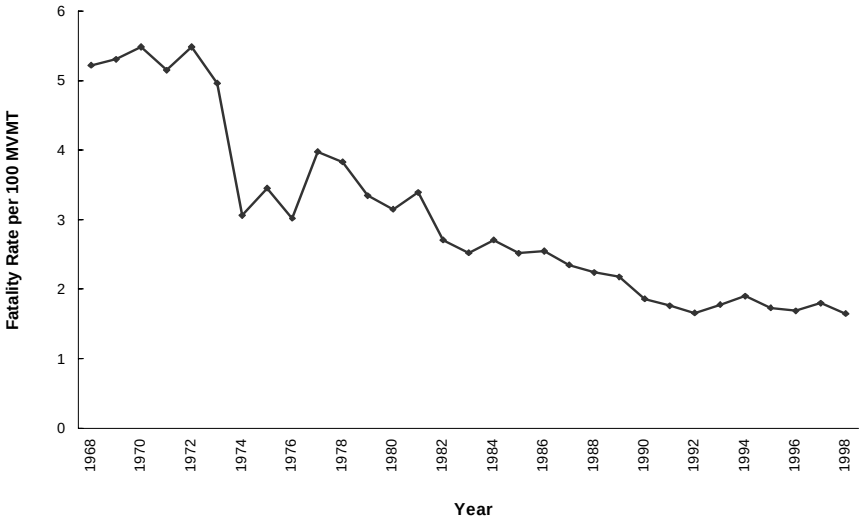
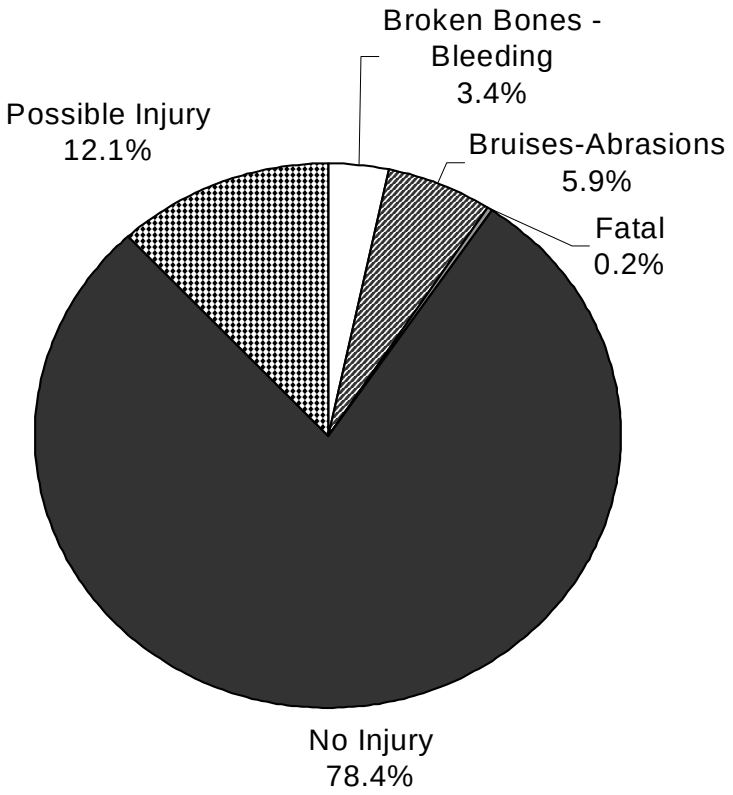


Figure 2.02 Crash Fatality Rates per Miles Traveled, 1968 -1998



1998 Crash Injury Severity

Figure 2.03 Severity of Injuries as Reported by Police, 1998 (n=141,461)



Nearly 80% of all crash participants did not sustain any injury. Fatal crashes represented 1% of all crashes, yet a fatal injury was sustained by 0.2% of all crash participants. These facts indicate that individuals in the same crash have different injury experiences. Many factors influence injury patterns including seatbelt use, seat position, and vehicle safety equipment.

1998 Crash Participants, Injured Persons and Crash Fatalities by County

Figure 2.04 depicts the number of injured persons and fatalities for each county, while Table 2.02 shows the rates of crash participants, injured persons and fatalities for each county. Two different rates are given in Table 2.02 one based on population of the county and the other on the miles traveled in the county. The leading counties for crash participants based on miles traveled were Salt Lake, Utah and Weber. The leading counties for injured persons were Salt Lake, Sanpete and Davis, while the leading three for fatalities were Piute, Wayne and Rich.

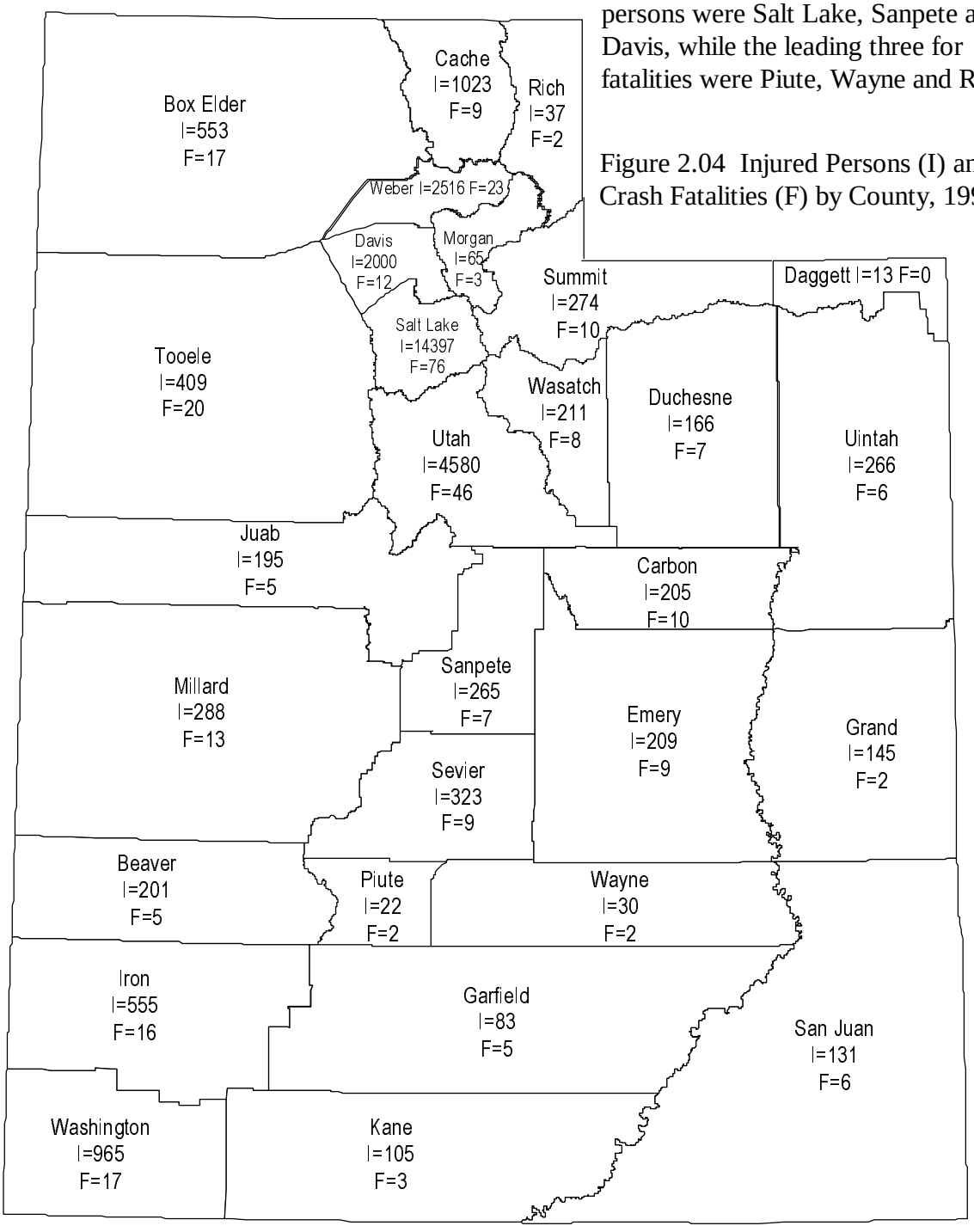


Figure 2.04 Injured Persons (I) and Crash Fatalities (F) by County, 1998

Table 2.02 Crash Participants, Injured Persons and Crash Fatalities by County, 1998

	Crash Participants			Injured Persons			Crash Fatalities		
County	#	Rate per MVMT	Rate Per 10,000 Population	#	Rate per 10 MVMT	Rate Per 10,000 Population	#	Rate per 100 MVMT	Rate Per 10,000 Population
Beaver	722	3.6	1,135.6	201	10.0	316.1	5	2.5	7.9
Box Elder	2,154	2.5	521.4	553	6.4	133.9	17	2.0	4.1
Cache	5,611	7.6	621.7	1,023	1.4	113.4	9	1.2	1.0
Carbon	859	2.6	387.8	205	6.1	92.5	10	3.0	4.5
Daggett	92	4.1	1,104.4	13	0.6	156.1	0	0.0	0.0
Davis	11,528	5.9	505.5	2,000	10.2	87.7	12	0.6	0.5
Duchesne	773	4.2	541.7	166	0.9	116.3	7	3.8	4.9
Emery	663	2.0	599.6	209	6.4	189.0	9	2.7	8.1
Garfield	322	2.5	693.8	83	0.7	178.8	5	4.0	10.8
Grand	537	2.1	539.5	145	5.6	145.7	2	0.8	2.0
Iron	2,492	4.7	782.2	555	1.0	174.2	16	3.0	5.0
Juab	679	2.1	861.3	195	6.1	247.4	5	1.6	6.3
Kane	529	4.4	744.5	105	0.9	147.8	3	2.5	4.2
Millard	940	2.4	751.1	288	7.2	230.1	13	3.3	10.4
Morgan	300	2.6	437.6	65	0.6	94.8	3	2.6	4.4
Piute	84	2.8	519.5	22	7.2	136.1	2	6.6	12.4
Rich	179	4.0	961.8	37	0.8	198.8	2	4.5	10.7
Salt Lake	66,471	9.4	781.8	14,397	20.4	169.3	76	1.1	0.9
San Juan	593	2.2	444.8	131	0.5	98.3	6	2.2	4.5
Sanpete	1,081	4.9	506.3	265	12.0	124.1	7	3.2	3.3
Sevier	1,290	3.6	684.5	323	0.9	171.4	9	2.5	4.8
Summit	1,741	3.0	680.6	274	4.8	107.1	10	1.8	3.9
Tooele	1,525	2.4	447.6	409	0.6	120.0	20	3.2	5.9
Uintah	1,335	4.8	545.1	266	9.5	108.6	6	2.1	2.4
Utah	22,001	8.0	659.1	4,580	1.7	137.2	46	1.7	1.4
Wasatch	1,083	4.9	794.9	211	9.5	154.9	8	3.6	5.9
Washington	4,705	5.5	589.4	965	1.1	120.9	17	2.0	2.1
Wayne	125	3.4	496.0	30	8.1	119.0	2	5.4	7.9
Weber	11,047	7.9	599.3	2,516	1.8	136.5	23	1.6	1.3
Grand Total	141,461	6.7	673.4	30,232	14.2	143.9	350	1.6	1.7

1998 Characteristics of Crash Participants

Table 2.03 contains the injury levels by participants' placement in the crash. Pedestrians involved in a crash were at the greatest risk for a fatal injury. In fact, pedestrians were 25 times more likely than other crash participants to sustain a fatal injury. For occupants, the back seat provided more protection against fatal injury. Front seat passengers (excluding drivers) were 2.4 times more likely than back seat passengers to sustain a fatal injury.

The gender breakdown of crash participants is shown in Table 2.04. Over half of the crash participants were males (55%). Males sustained fatal injuries at a slightly higher rate than females. While female crash participants were more likely to sustain an injury than male crash participants.

Figure 2.05 shows the age of crash participants. The largest proportion (37%) were aged 15 to 24 years. Individuals over the age of 65 years represented a small proportion of crash participants but were 3 times more likely than all other age groups to sustain a fatal injury when involved in a crash.

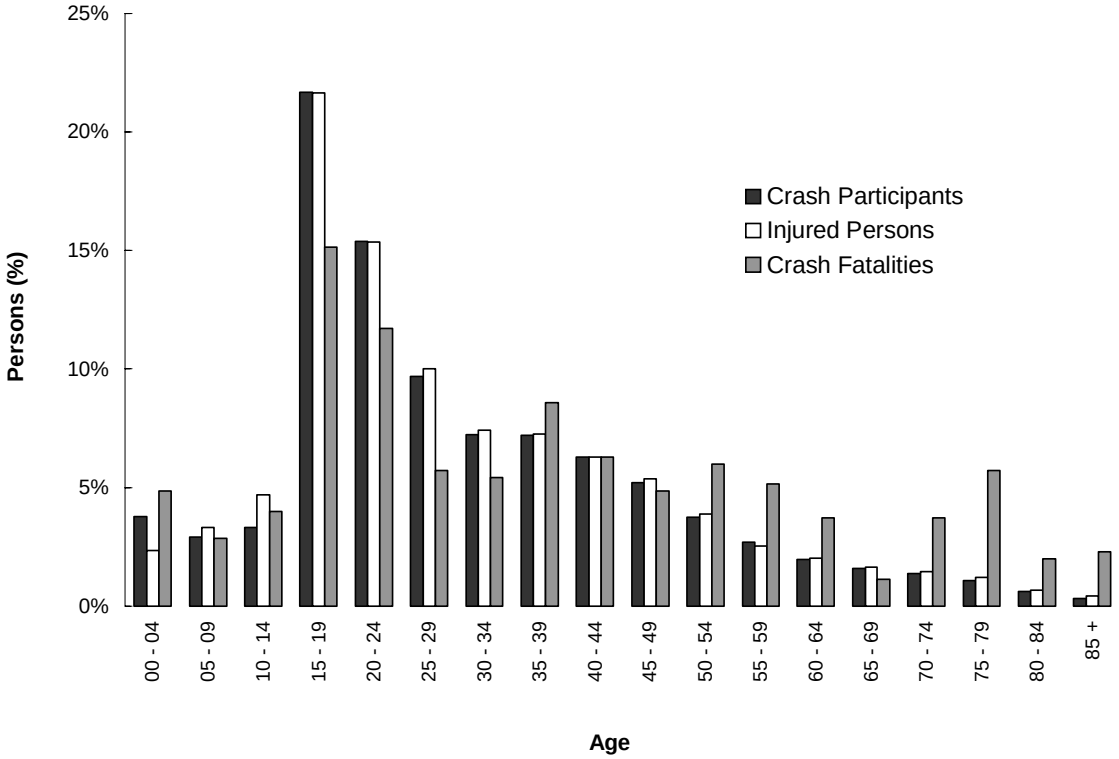
Table 2.03 Injury Severity by Participants' Placement in the Crash, 1998

Participant Placement	Crash Participants		Injured Persons		Crash Fatalities	
	#	%	#	%	#	%
Driver	97,959	69.2%	18,672	61.8%	178	51.6%
Front Seat Passenger	25,187	17.8%	6,682	22.1%	69	24.0%
Back Seat Passenger	16,108	11.4%	3,083	10.2%	45	9.8%
Cargo Area	296	0.2%	103	0.3%	0	0.8%
Pedestrian	851	0.6%	774	2.6%	44	10.7%
Bicyclist	839	0.6%	758	2.5%	9	0.8%
Other	221	0.2%	160	0.5%	5	2.2%
Grand Total	141,461	100.0%	30,232	100.0%	350	100.0%

Table 2.04 Gender of Crash Participants, Injured Persons and Crash Fatalities, 1998

Gender	Crash Participants		Injured Persons		Crash Fatalities	
	#	%	#	%	#	%
Male	77,422	54.7%	14,146	46.8%	215	58.5%
Female	61,732	43.6%	15,976	52.8%	135	41.5%
Missing	2,307	1.6%	110	0.4%	0	0.0%
Grand Total	141,461	100.0%	30,232	100.0%	350	100.0%

Figure 2.05 Age of Crash Participants, Injured Persons and Crash Fatalities, 1998
(See Table 2.05 for values)



Note: The above graph is based on percentages for the different crash participant categories. To read the above graph, look at one category across the groups. For example, look at only the white bars (i.e. injured persons) from age group to age group. Do not compare the heights of the different crash participant categories for a specific age group.

Table 2.05 Age of Crash Participants, Injured Persons and Crash Fatalities, 1998

	Crash Participants		Injured Persons		Crash Fatalities	
Age	#	%	#	%	#	%
00 - 04	5,326	3.8%	711	2.4%	17	4.9%
05 - 09	4,109	2.9%	1,004	3.3%	10	2.9%
10 - 14	4,693	3.3%	1,424	4.7%	14	4.0%
15 - 19	30,647	21.7%	6,539	21.6%	53	15.1%
20 - 24	21,729	15.4%	4,641	15.4%	41	11.7%
25 - 29	13,688	9.7%	3,031	10.0%	20	5.7%
30 - 34	10,234	7.2%	2,242	7.4%	19	5.4%
35 - 39	10,167	7.2%	2,194	7.3%	30	8.6%
40 - 44	8,876	6.3%	1,901	6.3%	22	6.3%
45 - 49	7,356	5.2%	1,624	5.4%	17	4.9%
50 - 54	5,292	3.7%	1,180	3.9%	21	6.0%
55 - 59	3,804	2.7%	767	2.5%	18	5.1%
60 - 64	2,774	2.0%	615	2.0%	13	3.7%
65 - 69	2,243	1.6%	500	1.7%	4	1.1%
70 - 74	1,944	1.4%	439	1.5%	13	3.7%
75 - 79	1,506	1.1%	366	1.2%	20	5.7%
80 - 84	894	0.6%	209	0.7%	7	2.0%
85 +	461	0.3%	130	0.4%	8	2.3%
Missing	5,718	4.0%	715	2.4%	3	0.9%
Grand Total	141,461	100.0%	30,232	100.0%	350	100.0%

There were 350 crash related fatalities during 1998. Figure 2.06 shows that over a quarter of the fatalities (27%) occurred among those aged 15 -24 years. The largest number of fatalities for both males and females occurred in the 15 -19 year old age group.

Figure 2.06 Age and Gender of Crash Fatalities, 1998